

containing a specific oxygenate compound. The certification may also be restricted to premium grade gasoline. Any such use restrictions must be specified in the certification letter. Provisions in §§ 80.168 and 80.171(a)(9) through (12) related to such use restrictions also apply.

(2) Detergent certification under this option entails special initial and annual reporting requirements, specified under §§ 80.161(b)(3)(vi) and 80.164(c)(3), which necessitate that the responsible party have control over and access to the segregated gasoline pool for which the detergent is certified. For this reason, the certifying party under this option is likely to be (but is not required to be) a fuel manufacturer or detergent blender, rather than the additive manufacturer.

(3) If a certifier demonstrates that the required test fuel representing a segregated pool of gasoline meets the deposit control performance standards specified in § 80.165 in the absence of a detergent additive, or using a detergent additive which has only PFID-control activity, then this gasoline pool (and PFID detergent, if applicable) can be certified accordingly under the fuel-specific option.

(4) Gasoline properly additized with a detergent certified under the fuel-specific option may be transferred or sold anywhere within the United States and its territories (subject to approved State programs).

(d) *CARB-Based Certification.* A valid certification under section 2257 of Title 13, California Code of Regulations (CARB certification) may be the basis for a certification under the following restrictions and conditions:

(1) A detergent certified under this option may be used at the LAC specified in the CARB certification only in gasoline that meets the requirements of California Phase II reformulated gasoline (pursuant to Title 13, Chapter 5, Article 1, Subarticle 2, California Code of Regulations, Standards for Gasoline Sold Beginning March 1, 1996). The grade(s) of California gasoline which may be so additized, and the oxygenate(s) which may be present, are as specified in the CARB certification for the detergent in question.

(2) The gasoline must be either: Additized in California; or sold or dispensed to the ultimate consumer in California (or to parties who sell or dispense to the ultimate consumer in California); or both additized and ultimately dispensed in California.

(3) A certification under this option will continue to be valid only as long as the CARB certification remains valid. The certifier must cease selling or using a detergent immediately upon being notified by CARB that the CARB certification for this detergent has been invalidated, and must notify EPA within 7 days of receipt of this notification.

[61 FR 35368, July 5, 1996]

§ 80.164 Certification test fuels.

(a) *General requirements.* This section provides specifications for the test fuels required in conjunction with the certification options described in § 80.163. For each such certification option, the associated test fuel must meet or exceed the levels of four basic fuel parameters (aromatics, fuel sulfur, olefins, and T-90) prescribed here and may also contain specified oxygenate compounds. In addition, pursuant to paragraph (b)(3) of this section, some fuels must undergo an IVD demonstration test before they are eligible to be used as test fuels under this certification program. Test fuel characteristics must be reported to EPA in the detergent certification letter required pursuant to § 80.161(b)(3).

(1) Quantitative specifications for the four basic fuel parameters, provided in paragraphs (b) and (c) of this section, refer to the levels of these parameters in the base gasoline prior to the addition of any oxygenate. The levels of the basic fuel parameters must be measured in accordance with applicable procedures in § 80.46.

(2) Oxygenate components of certification test fuels must be of fuel grade quality. The type and amount of oxygenate to be blended into the test fuel (if any) shall be as follows:

(i) To certify a detergent for generic use (i.e., for use in gasoline containing any oxygenate compound, as well as for use in nonoxygenated gasoline), the finished test fuel shall contain ethanol at 10 volume percent.

(ii) To certify a detergent specifically for use in nonoxygenated gasoline, no oxygenate compounds shall be added to the test fuel.

(iii) To certify a detergent specifically for use in gasoline blended with a specified oxygenate compound other than ethanol, the specified oxygenate must be added to the test fuel in an amount such that the finished fuel contains the oxygenate at the highest concentration at which the specific oxygenate may be used in in-use gasoline.

(3) No detergent-active substance other than the detergent additive package undergoing testing may be added to a certification test fuel. Typical nondetergent additives, such as antioxidants, corrosion inhibitors, and metal deactivators, may be present in the test fuel at the discretion of the additive certifier. In addition, any nondetergent additives (other than oxygenate compounds) which are commonly blended into gasoline and which are known or suspected to affect IVD or PFID formation, or to reduce the ability of the detergent in question to control such deposits, should be added to the test fuel for certification testing.

(4) Certification test requirements may be satisfied for a detergent additive using more than one batch of test fuel, provided that each batch satisfies all applicable test fuel requirements under this section.

(5) Unless otherwise required by this section, finished test fuels must con-

form to the requirements for commercial gasoline described in ASTM D 4814-95c, "Standard Specification for Automotive Spark-Ignition Engine Fuel", which is incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at U.S. EPA, OAR, 401 M St., SW., Washington, DC 20460, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. Copies of this material may be obtained from ASTM, 1916 Race St., Philadelphia, PA 19103.

(b) *National and PADD certification test fuels.* (1) Test fuels for the national generic and premium certification options must contain levels of the designated fuel parameters which meet or exceed the applicable values in Table 1. Test fuels for the PADD generic certification options must contain levels of the designated fuel parameters which meet or exceed the applicable values in Table 2. Test fuels for the PADD premium certification options must contain levels of the designated fuel parameters which meet or exceed the applicable values in Table 3. Oxygenate requirements for the respective non-oxygenate and oxygenate-specific sub-options are specified in paragraph (a)(2) of this section.

TABLE 1—NATIONAL CERTIFICATION TEST FUELS

Certification option	Required minimum fuel parameter values				
	Sulfur (weight %)	T-90 (F)	Olefins (volume %)	Aromatics (volume %)	Oxygenate (volume %)
1. National Generic	0.034	339	11.4	31.1	10% Ethanol.
2. National Premium	0.016	332	6.5	35.9	

TABLE 2—PADD-SPECIFIC GENERIC CERTIFICATION TEST FUELS

Certification option	Required minimum fuel parameter values				
	Sulfur (weight %)	T-90 (F)	Olefins (volume %)	Aromatics (volume %)	Oxygenate (volume %)
PADD 1 Generic	0.039	343	15.4	32.1	10% Ethanol.
PADD 2 Generic	0.034	338	10.3	29.3	
PADD 3 Generic	0.032	343	12.9	29.8	
PADD 4 Generic	0.050	326	10.0	27.1	
PADD 5 Generic	0.021	337	7.6	34.5	

TABLE 3—PADD-SPECIFIC PREMIUM-GRADE CERTIFICATION TEST FUELS

Certification option	Required minimum fuel parameter values				
	Sulfur (weight %)	T-90 (F)	Olefins (volume %)	Aromatics (volume %)	Oxygenate (volume %)
PADD 1 Premium	0.018	332	9.2	38.6	10% Ethanol.
PADD 2 Premium	0.014	333	6.0	34.3	
PADD 3 Premium	0.015	334	6.0	34.6	
PADD 4 Premium	0.040	319	6.0	22.3	
PADD 5 Premium	0.011	332	4.3	36.7	

(2) National and PADD certification test fuels must either be formulated to specification from normal refinery blend stocks, or drawn from finished gasoline supplies. The source of such samples must be normally-operating gasoline production or distribution facilities located in the U.S. Samples must not be drawn from a segregated gasoline pool that is or will be covered by a fuel-specific certification under §80.163(c) on the date when the certification information under this option is submitted to EPA.

(3) To be eligible for use in detergent additive certification testing, in addition to the specifications above, national and PADD test fuels which are specially formulated from refinery

blend stocks must themselves undergo testing to demonstrate their deposit-forming tendency. For this purpose, the unadditized, nonoxygenated test fuel must be subjected to the IVD control test procedure described in §80.165(b). At the discretion of the tester, the duration of the demonstration test may be less than 10,000 miles, provided the results satisfy the standard of this paragraph. In order to qualify for use in certification testing, the formulated fuel's test results must meet or exceed the values shown in Table 4 for the relevant certification option. If the demonstration test results do not meet these criteria, then the formulated fuel may not be used for detergent certification testing.

TABLE 4—IVD DEMONSTRATION TEST CRITERIA

Certification option	Minimum required deposit level in IVD demonstration test (mg/valve, average)					
	National	PADD 1	PADD 2	PADD 3	PADD 4	PADD 5
Generic	290	290	260	290	260	260
Premium	260	260	235	260	235	235

(c) *Fuel-specific certification test fuels.* (1) Test fuels required for fuel-specific certification must contain levels of each of the four basic fuel parameters (aromatics, olefins, T-90, and fuel sulfur) at no less than their respective 65th percentile values in the segregated gasoline pool for which the detergent certification is sought in accordance with §80.163(c). These values must be determined by the certifier as follows:

(i) At least once monthly for at least one complete year prior to the certification, the certifier must measure the levels of the required parameters in representative fuel samples contributed to the segregated gasoline pool by each participating refinery, terminal,

or other fuel production or distribution facility. The fuel parameters must be measured in accordance with the test procedures in §80.46. If the applicability of the fuel-specific certification is to be limited to premium gasoline, then the required fuel compositional data must be collected only from samples of premium gasoline.

(ii) The fuel composition survey results, weighted according to the percentage of gasoline contributed to the segregated gasoline pool from each participating facility, shall be used to construct a percentile distribution of the measured values for each of the fuel parameters.

(iii) Data from more than one year may be used to construct the required statistical distribution provided that only the total data from complete consecutive years is used and that all survey data must have been collected within three years of the date the certification information is submitted to EPA.

(iv) At the discretion of the certifier, other fuel parameters may be used to define the certification test fuels in addition to the four required parameters. To be taken into account by EPA in case of confirmatory testing pursuant to § 80.167, such additional parameters must be surveyed and analyzed according to the same requirements applicable to the four standard parameters. In addition, any optional parameters must be measured using test procedures which conform to reasonable and customary standards of repeatability and reproducibility, and reasonable and customary limits of detection and accuracy for the type of test procedure or analytic procedure in question.

(v) Using the percentile distributions calculated from the survey data for the four required parameters and any additional discretionary parameters, the 65th percentile value for each such parameter shall be determined. Prior to the addition of any oxygenate compound, the fuel-specific certification test fuel shall contain each specified parameter at a level or concentration no less than this 65th percentile value. Test fuel oxygenate requirements for generic, nonoxygenate, and oxygenate-specific certification suboptions are specified in paragraph (a)(2) of this section.

(2) Fuel-specific certification test fuels must either be formulated to specification from the same refinery blend stocks which are normally used to blend the gasolines included in the subject gasoline pool, or drawn from the finished fuel supplies which contribute to this pool of gasoline. Fuel-specific certification test fuels need not undergo an IVD demonstration test prior to use in certification testing.

(3) The certifier must submit an annual report to EPA within 30 days of the anniversary of the initial certification effective date. Failure to submit the annual report by the required date

will invalidate the fuel-specific certification and may subject the certifier to liability and penalties under §§ 80.169 and 80.172. The purpose of the annual report is to update the information on the composition of the segregated gasoline pool that was characterized by the initial fuel survey.

(i) For this purpose, the same fuel survey and statistical analysis requirements that were conducted pursuant to paragraphs (c)(1)(i),(ii), and (iv) of this section must be repeated, using data for the most current twelve-month period from each of the production/distribution facilities that contributed to the original fuel survey.

(ii) The annual report must present the percentile distributions for each fuel parameter as determined from the new survey data and, for each measured fuel parameter, must compare the newly determined 50th percentile value with the 60th percentile value for that parameter as determined in the original fuel survey.

(iii) If the new 50th percentile level for any fuel parameter is greater than or equal to the 60th percentile level reported in the initial certification, then the fuel-specific certification is no longer valid. In such instance, the certifier must immediately discontinue the sale and use of the subject detergent under the conditions of the fuel-specific certification and must immediately notify any downstream customers/recipients of the subject detergent that the certification is no longer valid and that their use of the detergent must discontinue within seven days. To avoid liability and penalties under §§ 80.169 and 80.172, the certifier must take these remedial steps within 45 days of the anniversary of the original fuel-specific certification. Downstream customers/recipients must discontinue usage of the detergent within seven days of receipt of notification of the detergent's invalidity to avoid such liability.

(4) The fuel composition survey results which support the original test fuel specifications and the annual statistical analyses, along with related documentation on test methods and statistical procedures, shall be retained by the certifier for a period of at least

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five years, and shall be made available to EPA upon request.

[61 FR 35369, July 5, 1996]

§ 80.165 Certification test procedures and standards.

This section specifies the deposit control test requirements and performance standards which must be met in order to certify detergent additives for use in unleaded gasoline, pursuant to § 80.161(b)(1)(ii)(A)(2). These standards must be met in the context of the specific test procedures identified in paragraphs (a) and (b) of this section, except as provided in paragraph (c) of this section. In any case, the testing must be conducted and the performance standards met when the subject detergent additive is mixed in a test fuel meeting all relevant requirements of § 80.164, including the deposit-forming tendency demonstration specified in § 80.164(b)(3), if applicable. Complete test documentation must be submitted by the certifying party within 30 days of receipt of a written request from EPA for such records.

(a) Fuel injector deposit control testing.

(1) The required test fuel must produce no more than 5% flow restriction in any one injector when tested in accordance with ASTM D 5598–94, “Standard Test Method for Evaluating Unleaded Automotive Spark-Ignition Engine Fuel for Electronic Port Fuel Injector Fouling,” 1994, which is incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at U.S. EPA, OAR, 401 M St., SW., Washington, DC 20460, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. Copies of this material may be obtained from ASTM, 1916 Race St., Philadelphia, PA 19103.

(2) At the option of the certifier, fuel injector flow may be measured at intervals during the 10,000 mile test cycle described in ASTM D 5598–94, in addition to the flow measurements required

at the completion of the test cycle, but not more than every 1,000 miles.

(b) *Intake valve deposit control testing.* The required test fuel must produce the accumulation of less than 100 mg of intake valve deposits on average when tested in accordance with ASTM D 5500–94, “Standard Test Method for Vehicle Evaluation of Unleaded Automotive Spark-Ignition Engine Fuel for Intake Valve Deposit Formation,” 1994, which is incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at U.S. EPA, OAR, 401 M St., SW., Washington, DC 20460, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. Copies of this material may be obtained from ASTM, 1916 Race St., Philadelphia, PA 19103.

(c) If conducted using test fuels meeting all relevant requirements of § 80.164, and completed prior to September 3, 1996, then the PFID and IVD control test procedures required for detergent certification in California (specified in section 2257 of Title 13, California Code of Regulations) will also be considered acceptable. California Air Resources Board, “Test Method for Evaluating Port Fuel Injector (PFI) Deposits in Vehicle Engines”, March 1, 1991, and California Air Resources Board, “BMW—10,000 Miles Intake Valve Test Procedure”, March 1, 1991, are incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at U.S. EPA, OAR, 401 M St., SW., Washington, DC 20460, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. Copies of this material may be obtained from the California Air Resource Board, Stationary